

Notice of Allowability

Application No.

09/913,886

Applicant(s)

YAMAMOTO ET AL.

Examiner

Art Unit

Karen L. Le

2642

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/21/01.
2. ☒ The allowed claim(s) is/are 1-6 and 9-17.
3. ☒ The drawings filed on 21 August 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASON FOR ALLOWANCE

1. Claims 1-6 and 9-17 are allowed.
2. The following is a statement of reasons for allowance:

Hayashihara (U. S. 6,766,156) teaches a low-noise amplifier having low-distortion characteristics, a low noise amplifier of a low current consumption type and radio-frequency switches for selectively switching either of them are provided in a receiving radio-frequency unit. On the basis of a mode changing control function of a CPU, a switch control signal is generated so that the low distortion is selected during a period in which the operation of a radio transmitter-receiver is in a transmitting/receiving state, and that the low current consumption is selected in a period of a standby state, and thus the switching of the radio-frequency switches of a low-noise amplifier circuit section is controlled.

Shinomiya (U.S. 6,259,901) teaches a radio-frequency power amplifier of mobile communication equipment includes a differential amplifier arranged to balanced input and amplify a radio-frequency signal delivered from a frequency converter of a transmission system of the mobile communication equipment located downstream of a modulator of the transmission system. The radio frequency signal delivered from the differential amplifier is further amplified and balanced output by a push-pull circuit. The differential amplifier and the push –pull circuit are respectively supplied with bias currents varying in dependence on a gain control signal, whereby respective amplification gains of the differential amplifier and the push-pull circuit are variably adjusted.

However, the prior art of record fails to teach, or render obvious, alone or combination, a First low noise amplifier provided with a control terminal for turning on/off the low noise amplifier. Power terminals of the low noise amplifier (LNA) and a second low noise amplifier are commonly connected, and are connected to a power supply via a power supply switch. Ground terminals of the two amplifiers are commonly connected, and a constant current source is connected between the common terminal and the ground. The amplifiers are turned on/off by switching the voltage applied to the control terminal of the first low noise amplifier between a high potential and a low potential. The power supply switch is turned off during signal transmission. Therefore, an LNA block can be provided by using only one power supply switch, whereby it is possible to reduce the number of devices from that in the prior art, thereby realizing a reduction in the size thereof.


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen L Le whose telephone number is 703-308-4998. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F Matar can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karen Le
KLL
May 2, 2005


AHMAD F. MATAR
SUPERVISORY PATENT EXAMINER
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